

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

1-33. (Cancelled)

34. (New) A system for cooling electronic components, comprising:

a rack structure holding a plurality of computer boards that support heat-generating computer components, the rack structure having open first and second opposed sides;

a plurality of air circulation fans near one of the first or second opposed sides, wherein each of the circulation fans is located near an edge of one of the computer boards and positioned to circulate cooling air across an associated board, wherein the air circulation fans provide substantially all air flow over the boards;

one or more cooling coils associated with each of the plurality of boards and located near one of the first or second opposed sides of the rack structure; and

a fan controller corresponding to each air circulation fan to control the speed of the corresponding fan according to a temperature sensed around a board corresponding to the air circulation fan.

35. (New) The system of claim 34, wherein the one or more cooling coils are positioned immediately adjacent to the plurality of circulation fans.

36. (New) The system of claim 34, further comprising a plurality of rack structures, each rack structure having associated air fans, cooling coils, and fan controllers, and wherein the rack structures are arranged to form a pair of rows on each side of a central aisle, with the cooling coils located on sides of the rack structures away from the aisle and near outside walls of a container that houses the plurality of rack structures.

37. (New) The system of claim 36, further comprising a cooling module located outside the container and fluidly connected to the cooling coils at one end of the container.

38. (New) The system of claim 34, further comprising a separate cooling coil for each computer in a rack of computers.

39. (New) The system of claim 38, wherein the computer boards are mounted horizontally on shelves of the rack structure, and each of the air circulation fans is matched to a space between adjacent boards.

40. (New) The system of claim 34, further comprising:
a valve in fluid communication with the cooling coil for modulating a cooling liquid to the cooling coil; and
a valve controller operated by a common control system as the fan controller, the valve controlled by the valve controller according to at least one of a temperature and a pressure of the cooling liquid.

41. (New) The system of claim 34, wherein the one or more cooling coils include coolant conduits having an external member and an inner baffle defining an annular channel therebetween and through which a cooling liquid flows.

42. (New) The system of claim 34, wherein the cooling for each computer board is individually controlled by individually and separately controlling a fan speed, and thus air flow rate, for each computer board.

43. (New) A system for cooling electronic components, comprising:
first and second rows of computer racks arranged on each side of a central aisle, each rack including:
a frame structure defining a plurality of spaces and an open front and back sides, wherein the open front side of each rack is adjacent the aisle;
a plurality of computer boards holding computing components and mounted in the frame structure;
a plurality of fans, each associated with a computer board and a temperature sensor near the computer board;
one or more cooling coils arranged to cool substantially all of the air from the plurality of fans; and
a plurality of fan controllers corresponding to the plurality of fans and programmed to control the speed of each fan according at least to a temperature sensed by each fan's associated temperature sensor.

44. (New) The system of claim 43, wherein the open back side of each frame structure is adjacent an exterior wall of a container that holds the rows of computer racks and the one or more cooling coils located between the open back side and the exterior wall of the container.

45. (New) The system of claim 44, wherein the racks extend substantially the length of the container.

45. (New) The system of claim 43, further comprising a cooling module located outside the container and providing a cooling liquid to the plurality of cooling coils.

46. (New) The system of claim 43, wherein the cooling coils include coolant conduits having an external member and an inner baffle defining an annular channel therebetween and through which a cooling liquid flows.

47. (New) The system of claim 43, wherein the cooling for each computer board is individually controlled by individually and separately controlling a fan speed, and thus air flow rate, for each computer board.

48. (New) A method for cooling electronic components, comprising:
providing a rack structure having an open first side and an opposed open second side;
providing a plurality of computer boards in the rack structure in a manner to create open spaces between each of the next adjacent computer boards;
circulating air across the computer boards and through cooling coils adjacent the second side of the rack structure using fans adjacent the outlet side of the rack structure, wherein each fan corresponds to a computer board; and
controlling a speed of each fan using a sensed temperature around its corresponding board.

49. (New) The method of claim 48, further comprising providing the rack structure with other corresponding rack structures along opposed sides of a central aisle in a container, wherein the aisle is located adjacent the first open side of the rack structures and the second sides of the rack structures are located adjacent exterior walls of the container.

50. (New) The method of claim 49, further comprising:
providing a cooling module located outside the container; and
fluidly connecting the cooling module to the cooling coils at one end of the container.

51. (New) The method of claim 48, further comprising:
mounting the plurality of computer boards horizontally on shelves of the rack structure;
and
matching each of the fans to a space between adjacent computer boards.

52. (New) The method of claim 48, further comprising:
providing at least one valve in fluid communication with the cooling coils;
modulating a cooling liquid to the cooling coils through the valve; and
controlling the valve according to at least one of a temperature and a pressure of the cooling liquid.

53. (New) The method of claim 52, wherein providing at least one valve in fluid communication with the cooling coils comprises providing a cooling liquid to a coolant conduit having an external member and an inner baffle defining an annular channel therebetween and through which the cooling liquid flows, at least one of the cooling coils comprising the coolant conduit.

54. (New) The method of claim 48, wherein controlling a speed of each fan using a sensed temperature around its corresponding board comprises individually and separately controlling a speed of each fan using a sensed temperature around its corresponding board.